UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,033	05/10/2001	Guoping Zhang	12126	7868

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EXAMINER
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ART UNIT	PAPER NUMBER
2859	

DATE MAILED: 12/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _29 September 2003_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-33 and 46-70_ is/are pending in the application.

    4a) Of the above claim(s) _46-70_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-33_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4)☐ Interview Summary (PTO-413) Paper No(s). _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: .

DETAILED Final ACTION

Drawings

1.   The objections to the drawings from the office action of March 28th 2003 are

rescinded in view of the red-ink proposed drawing changes to figures 5, 8B, 11 and

13A; in combination with the amendments to the disclosure concerning the drawings of

the September 29th 2003 amendment response. [See also the remarks on pages 19 and

20 of the applicant's September 29th 2003 submission.]

2.   The red-ink drawing corrections have been approved by the examiner.

Specification

3.   The objections to the disclosure from the office action of March 28th 2003 are

rescinded in view of the September 29th 2003 amendment response.

Withdrawal of Newly submitted claims 46-70 by original presentation.

4.   **Newly submitted claims 46-70** are directed to an invention that is independent

or distinct from the invention originally claimed, for the same reasons that originally filed

claims 34-45 were restricted without traverse by applicant, if **Newly submitted claims**

46-70 had been filed with the originally filed claims, they would have been restricted in

the restriction of September 23rd 2002 in the same grouping as originally filed claims 34-

45, for the following reasons:

5.   Originally filed **claims 1-33**, are drawn to a user interface operable to create, on

a display device, a window for displaying a plurality of menu editor items, [See claims 1-

18] and a method for using that interface for the creation and customization of pulse

sequences, without any magnetic resonance specific components. [See claims 19-33]

classified in class 600, subclass 523. Art Unit 3762 [See for example US patent

6,014,581 issued January 11th 2000 to **Whayne et al.,** entitled "Interface for Performing

a diagnostic or therapeutic Procedure on the Heart Tissue with an Electronic Structure".

Other related class/subclasses include: 600/525; 600/300; 128/920

6.   Originally filed claims, 34-45 (i.e. Group 2) which were restricted out **without**

traverse by applicant and are now the focus of **divisional application 10/352,742** were

drawn to the non-elected invention of: A magnetic resonance imaging system for the

creation and customization of pulse sequences [See claims 34-45], classified in class

324, subclass 318. [Magnetic resonance electronic measuring and testing components],

were subject to a restriction requirement on September 23rd 2002 The examiner notes

that other related class/subclasses for magnetic resonance imaging systems in include:

class 324/307, 312, 322, 300 Art Unit 2859.

7.   The inventions are distinct, each from the other because of the following reasons:

8.   Inventions I and II are related as combination and subcombination. Inventions in

this relationship are distinct if it can be shown that (1) the combination as claimed does

not require the particulars of the subcombination as claimed for patentability, and (2)

that the subcombination has utility by itself or in other combinations (MPEP §

806.05(c)). In the instant case, the combination as claimed does not require the

particulars of the subcombination as claimed because **claims 1-33** read on any usable

operable interface that can display, create, and edit menu items, and represent a

sequence in graphical form. There are numerous computer processor interfaces, in a

multitude of arts that read on these claims. Including bio-tech gene sequencer

interfaces, MRI, x-ray, medical ultrasound, PET, and other areas of diagnostic imaging,

or even digital image/signal processing. The subcombination has separate utility such

as being specifically directed toward a magnetic resonance imaging system, with other

MR imaging system components and limitations. The examiner notes that the

combination as claimed for **group I** does not require the particulars of the

subcombination (i.e. **group 2**) as claimed for patentability because **Group 1** has a much

broader scope than **Group II**.

9.   Because these inventions are distinct for the reasons given above and have

acquired a separate status in the art as shown by their different classification, restriction

for examination purposes as indicated is proper.

10.   Because these inventions are distinct for the reasons given above and the

search required for Group I is not required for Group II, restriction for examination

purposes as indicated is proper.

11.   Because these inventions are distinct for the reasons given above and have

acquired a separate status in the art because of their recognized divergent subject

matter, restriction for examination purposes as indicated is proper.

12.   A telephone call was made to Attorney **Raymond Van Dyke** Reg. No. 34,746 on

December 4th 2003 to inquire if applicant had meant to add newly added claims 46-70

to the divisional application (i.e. application number 10/352,742) resulting from the

restriction requirement of September 23rd 2003, the attorney upon review of the claims

in the instant application and application number 10/352,742 acknowledged the

examiner's concern and made an **oral election of pending claims 1-33** stating that

new claims 46-70 would be added to the pending divisional case, and that he

understood that **new claims 46-70** would be withdrawn from the instant application by

the examiner based upon original presentation.

13.   Since applicant has received an action on the merits for the originally presented

invention, the claims drawn to a graphical user interface in general, without the

magnetic resonance limitations, this invention has been constructively elected by

original presentation for prosecution on the merits. Accordingly, **newly added claims**

46-70 are withdrawn from consideration as being directed to a non-elected

invention. See 37 CFR 1.142(b) and MPEP § 821.03.

14.   **New Claims 46-70** need to be canceled by applicant in response to the

withdrawal from consideration, and applicant's proposal to add these claims to the

divisional application.

Response to Arguments

15.   Applicant's arguments filed September 29th 2003 have been fully considered but

they are not persuasive. Applicant is arguing features that are not specifically claimed,

applicant does not claim that the pulse sequences used throughout the claims, are

dynamic, non-standard, customizable and "on the fly", in a manner that is

distinguishable from the "canned only" approach which applicant argues is what the

Kasten et al., reference teaches and shows. Because **Kasten et al.,** customizes and

changes the graphical pulse representations viewed by the user throughout the **Kasten**

et al., imaging sequence, and makes changes on-line (i.e. live) "dynamic customization"

is met by **Kasten et al.,** and subsequently the limitations as currently claimed are still

met by the prior art of record, even though applicant argues that there are significant

differences between the prior art of **Kasten et al.,** and the instant application. The

examiner notes that the differences argued are not positively claimed in a manner that

is distinguishable from the prior art as of the date of this office action.

Claim Rejections - 35 USC § 102

16.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

17.   **Amended Claims 1-33** are **finally** rejected under 35 U.S.C. 102(b) as being

anticipated by **Kasten et al.,** US patent 5,317,260 issued May 31st 1994.

7.   With respect to **Amended Claim 1, Kasten et al.,** shows, teaches and suggests

"A user interface operable to create, on a display device, a window for displaying a

plurality of menu editor items for user selection" [See Figure 2, Figure 1, col. 2 line 11

through col. 9 line 35], "said menu editor items comprising: a sequence editor item for

creating a pulse sequence from at least one value; and a sequence tailor editor item for

user interaction with a graphical representation of a selected pulse sequence, wherein

during said user interaction, the selected pulse sequence is graphically displayed to the

user, [See Figure 2, Figure 1, the abstract and col. 2 line 11 through col. 9 line 35 where

each of the menu items, and the parameters of each sequence that can be changed, via

graphical icons (i.e. interpreted by the examiner as "editor items") are taught].

18.   **Kasten et al.**, also shows, teaches and suggests applicant's amended limitation

that "wherein the user interaction includes dynamic manipulation of and modification to

said graphical representation of said selected pulse sequence, and real time visual

feedback to the user of the manipulated pulse sequence", because the term dynamic is

broadly interpreted by the examiner as meaning that the interaction and manipulation of

the graphical representation is capable of being continuously modified throughout the

process of generating a pulse sequence. [See col. 3 lines 47-57; the abstract where

modification of standard pulses suggests customization; col. 7 line 59 through col. 8 line

60; especially col. 8 lines 23-25 where the possibility of actually observing the effect of

the parameter changes on the graphical representations, presented to the user is taught

to be of special interest.] The examiner also notes that because **Kasten et al.**, teaches

changes in programming which occur on-line (i.e. live while the user is providing

interaction and the pulse sequence is executing), upon the closing of a window, or only

after the conclusion of the generation of the total sequence, the ability to actually

observe the effect of the parameter changes on the graphical representations,

presented to the user "in real time visual feedback" is suggested. [See col. 8 lines 23-25

and col. 9 lines 10-27]   Additionally, user manipulation, of pulse sequence parameters

in a "dynamic" sense is a main focus of **Kasten et al.**, even though the actual word

"dynamic" is not explicitly stated, the understood definition of dynamic manipulation

does occur and is found within the **Kasten et al.**, reference.

8.   With respect to **Claim 2, Kasten et al.,** teaches and suggests "said sequence

tailor editor item is activated in response to user selection." [See col. 3 line 9 through

col. 4 line 16; col. 6 line 37 through col. 9 line 36; Figures 1, 2, and the abstract] The

same reasons for rejection, that apply to **claim 1** also apply to **claim 2**.

9.   With respect to **Claim 3,** and **corresponding method claim 25, Kasten et al.,**

teaches and suggests that "user selection of said sequence editor item activates a

display of at least one sequence parameter for creating said pulse sequence, said at

least one sequence parameter being operable to accept a default value." [See col. 3 line

9 through col. 4 line 16; col. 6 line 37 through col. 9 line 36; Figures 1, 2, and the

abstract] The same reasons for rejection, that apply to **claims 1, 19** also apply to

claims 3, 25.

10.   With respect to **Claim 4,** and **corresponding method claim 26, Kasten et al.,**

teaches and suggests that "said at least one sequence parameter is operable to accept

a user entered value." [See abstract, Figures 1 and 2; col. 2 line 17 through col. 4 line

16; col. 6 line 17 through col. 9 line 36; especially col. 7 lines 55-61.] The same reasons

for rejection, that apply to **claims 1, 3, 19, 25** also apply to **claims 4, 26**.

11.   With respect to **Claim 5,** and **corresponding method claim 27, Kasten et al.,**

teaches, shows, and suggests that "said at least one sequence parameter is selected

from the group consisting of: a gradient resolution parameter, a radio frequency pulse

resolution parameter, a echo gathering time parameter, a sequence name parameter, at

least one gradient motion compensation parameter, at least one radio frequency pulse

characteristic parameter, and at least one data acquisition parameter." [See Figures 1

and 2, col. 2 line 17 through col. 9 line 36 where the modifiable sequence parameters

are explained in detail throughout the reference and graphically shown/suggested in

Figures 1 and 2.] The same reasons for rejection, that apply to **claims 1, 3, 4, 19, 25, 26** also apply to claims **5, 27**.

12.   With respect to **Claim 6, Kasten et al.,** teaches and suggests that "acceptance, by the user interface, of the at least one sequence parameter activates said sequence tailor editor item." [See col. 7 line 14 through col. 9 line 36.] The same reasons for rejection, that apply to **claims 1, 3** also apply to **claim 6**.

13.   With respect to **Claim 7, Kasten et al.,** teaches and suggests that "activation of said sequence tailor editor item activates display of said pulse sequence and at least one control feature."[See col. 6 line 17 through col. 7 line 4; col. 7 line 14 through col. 9 line 36; in combination with Figures 1, 2, and the abstract.] The same reasons for rejection, that apply to **claim 1** also apply to **claim 2.**

14.   With respect to **Claim 8, Kasten et al.,** teaches and suggests that "said at least one control feature comprises at least one of a control section, a shape editor, a block editor, and a time scaler." [See col. 6 line 16 through col. 9 line 36; col. 5 line 55 through col. 6 line 5; col. 2 line 17 through col. 4 line 30] The same reasons for rejection, obviousness, and motivation to combine that apply to **claims 1, 7** also apply to **claim 8.**

15.   With respect to **Claim 9, Kasten et al.,** teaches and suggests that "said shape editor, when activated, is operable to modify at least one radio frequency pulse characteristic parameter and the radio frequency pulse shape associated with said selected pulse sequence." [See col. 5 line 38 through col. 6 line 36; col. 7 line 43 through col. 9 line 36.] The same reasons for rejection, that apply to **claim 1, 7, 8** also apply to **claim 9**.

16.   With respect to **Claim 10, Kasten et al.,** teaches and suggests that "said time scaler, when activated, displays at least one vertical line through the graphically displayed selected pulse sequence for assisting the user in analysis of timing relations of the pulse sequence." [See col. 3 line 30 through col. 4 line 16; Figures 1, 2 col. 6 lines 12-16; col. 6 line 24 through col. 7 line 61] The same reasons for rejection, that apply to **claim 1, 7, 8** also apply to **claim 10**.

17.   With respect to **Claim 11,** and **corresponding method claim 22, Kasten et al.,** teaches, shows and suggests that "said graphical representation within said window on said display device is divided into a plurality of portions." [See Figure 2; Figure 1; col. 2 line 17 through col. 9 line 16] The same reasons for rejection, that apply to **claims 1, 19** also apply to claims **11, 22**.

18.   With respect to **Claim 12,** and **corresponding method claim 23, Kasten et al.,** teaches, shows and suggests that "said plurality of portions comprises at least one of a radio frequency pulse characteristics graph, a slice select gradient graph, a signal acquisition graph, and a phase encoding graph." [See Figure 2; col. 7 line 14 through col. 9 line 36] The same reasons for rejection, that apply to **claims 1, 11, 19, 22** also apply to **claims 12, 23**.

19.   With respect to **Claim 13,** and **corresponding method claim 20, Kasten et al.,** teaches and suggests that "said menu editor items within said window further comprise a scan setting menu editor item for initiation of a magnetic resonance imaging scan." [See col. 3 line 9 through col. 4 line 20, where the ability to start a scan, or command

from a control signal represented by one of the graphic image symbols, is taught] The

same reasons for rejection, that apply to **claims 1, 19** also apply to **claims 13, 20**.

20.   With respect to **Claim 14, Kasten et al.,** teaches, shows and suggests that

"selection of said scan setting menu editor item displays at least one type of scan to

perform." [See Figure 2; col. 1 lines 6-29; col. 6 line 50 through col. 9 line 36; menu strip

56] The same reasons for rejection, that apply to claims 1, 13 also apply to claim 14.

21.   With respect to **Claim 15, and corresponding method claim 21, Kasten et al.,**

teaches and suggests that "said at least one type of scan comprises at least one scan

selected from the group consisting of: a two dimensional scan, a combination scan, a

three dimensional scan, a three dimensional combination scan, a two dimensional fast

spin echo scan, and combinations thereof." [See Figure 2 col. 6 line 50 through col. 9

line 36; abstract] The same reasons for rejection, that apply to **claims 1, 13, 14, 19, 20,**

also apply to **claims 15, 21.**

22.   With respect to **Claim 16, Kasten et al.,** teaches and suggests that "said type of

scan, when activated, displays at least one setting imaging parameter, said setting

imaging parameter being operable to accept at least one default value." [See abstract,

col. 2 line 17 through col. 9 line 36; because the ability to achieve this limitation is taught

for multiple parameters throughout the reference.] The same reasons for rejection, that

apply to **claims 1, 13, 14** also apply to **claim 16**.

23.   With respect to **Claim 17, Kasten et al.,** teaches and suggests that "said at least

one setting imaging parameter is operable to accept at least one user-entered value."

[See col. 7 lines 48-51; col. 6 lines 17-49; col. 2 lines 11-28; col. 1 lines 6-29; abstract]

The same reasons for rejection, that apply to **claims 1, 13, 14, 16** also apply to **claim 17.**

24.   With respect to **Claim 18, Kasten et al.,** teaches and suggests that "said at least one setting imaging parameter is selected from the group consisting of: a number of slices parameter, a slice thickness parameter, a sequence repetition parameter, a number of phase encoding levels parameter, a discrete Fourier transform size parameter, a polarity flipping parameter, and combinations thereof." [See Figures 1, 2; col. 5 line 38 through col. 9 line 36] The same reasons for rejection, that apply to **claims 1, 13, 14, 16** also apply to **claim 18.**

25.   With respect to **Amended Claim 19,** which is the **corresponding method version of claim 1, Kasten et al.,** teaches, shows and suggests "A method for creation and customization of pulse sequences. said method comprising the steps of: creating a window on a display device for displaying a plurality of menu editor items for user selection;" [See col. 2 lines 24-28; Figure 2;] "displaying a sequence editor item for creating a pulse sequence from at least one of user-entered values and default values;" [See col. 3 line 18 through col. 4 line 20; col. 6 line 36 through col. 7 line 42] "displaying a sequence tailor editor item for user interaction with a graphical representation of a selected pulse sequence" [See col. 6 line 36 through col. 7 line 33 through col. 9 line 36], "and displaying, graphically, said pulse sequence to the user." [See Figures, 1, 2, the abstract, col. 1 lines 6-29; and col. 2 line 17 through col. 9 line 36].

19.   **Kasten et al.,** also shows, teaches and suggests applicant's amended limitation that "wherein the user interaction includes dynamic manipulation of and modification to

said graphical representation of said selected pulse sequence, and real time visual

feedback to the user of the manipulated pulse sequence", because the term dynamic is

broadly interpreted by the examiner as meaning that the interaction and manipulation of

the graphical representation is capable of being continuously modified throughout the

process of generating a pulse sequence. [See col. 3 lines 47-57; the abstract where

modification of standard pulses suggests customization; col. 7 line 59 through col. 8 line

60; especially col. 8 lines 23-25 where the possibility of actually observing the effect of

the parameter changes on the graphical representations, presented to the user is taught

to be of special interest.] The examiner also notes that because **Kasten et al.**, teaches

changes in programming which occur on-line (i.e. live while the user is providing

interaction and the pulse sequence is executing), upon the closing of a window, or only

after the conclusion of the generation of the total sequence, the ability to actually

observe the effect of the parameter changes on the graphical representations,

presented to the user "in real time visual feedback" is suggested. [See col. 8 lines 23-25

and col. 9 lines 10-27]   Additionally, user manipulation, of pulse sequence parameters

in a "dynamic" sense is a main focus of **Kasten et al.**, even though the actual word

"dynamic" is not explicitly stated, the understood definition of dynamic manipulation

does occur and is found within the **Kasten et al.**, reference. The same reasons for

rejection, that apply to **Amended claim 1** also apply to **Amended claim 19**.

26.   With respect to **Claim 24, Kasten et al.,** teaches and suggests that "said method

further comprising the steps of: Initiating a magnetic resonance imaging scan by

activating a scan setting menu editor item within said window on said display device"

[See col. 3 line 9 through col. 4 line 20, where the ability to start a scan, or command from a control signal represented by one of the graphic image symbols, is taught; and col. 7 line 5 through col. 9 line 36]; "and displaying at least one setting imaging parameter." [See Figure 2; col. 2 lines 17-34; col. 3 lines 48-57] The same reasons for rejection, that apply to **claims 1, 19** also apply to **claim 24**.

27.   With respect to **Claim 28, Kasten et al.,** teaches and suggests that "said method further comprising the step of: activating said sequence tailor editor item by at least one of user selection and a response to said step of accepting of said at least one sequence parameter by a user interface." [See col. 5 line 38 through col. 9 line 36; col. 3 line 9 through col. 4 line 20; col. 2 lines 17-39; col. 1 lines 6-29; Figures 1, 2, and the abstract.] The same reasons for rejection, that apply to **claims 1, 19, 25, 26** also apply to **claim 28**.

28.   With respect to **Claim 29, Kasten et al.,** teaches and suggests that "said method further comprising the step of: displaying the selected one of said pulse sequences and at least one control feature for at least one of plot modification and plot enhancement." [See abstract, col. 2 lines 40-53; col. 4 lines 26-29; col. 3 line 46 through col. 4 line 16; col. 7 lines 43-61] The same reasons for rejection, that apply to **claims 1, 19, 25, 26, 28** also apply to **claim 29**.

29.   With respect to **Claim 30, Kasten et al.,** teaches and suggests that "said step of displaying further comprises the step of: displaying at least one of a control section, a shape editor, a block editor, and a time scaler." [See Figures 1, 2, abstract, col. 5 line 38

through col. 9 line 36; col. 1 lines 6-29; col. 2 line 9 through col. 4 line 20] The same

reasons for rejection, that apply to **claims 1, 19, 25, 26, 28, 29** also apply to **claim 30**.

30.   With respect to **Claim 31, Kasten et al.,** teaches and suggests that "said step of

displaying at least one of a control section, a shape editor, a block editor, and a time

scaler further comprises the steps of: activating said shape editor; and modifying at

least one of the radio frequency pulse characteristic parameters and the radio frequency

pulse shape associated with said pulse sequence." [See col. 7 line 62 through col. 8 line

32; Figures 1, 2, col. 5 line 38 through col. 6 line 49; Abstract, col. 1 lines 6-29] The

same reasons for rejection, that apply **to claims 1, 19, 25, 26, 28, 29, 30** also apply to

claim 31.

31.   With respect to **Claim 32, Kasten et al.,** teaches and suggests the steps of

"activating said time scaler, and displaying at least one vertical line through the

graphically displayed pulse sequence for assisting the user in analysis of timing

relations of the pulse sequence." [See col. 3 line 30 through col. 4 line 16; Figures 1, 2

col. 6 lines 12-16; col. 6 line 24 through col. 7 line 61] The same reasons for rejection,

obviousness, and motivation to combine that apply to **claims 1, 7, 8, 10, 19, 25, 26, 28,

29, 30** also apply to **claim 32**.

32.   With respect to **Claim 33, Kasten et al.,** teaches, shows and suggests

"displaying at least one of a number of slices parameter, a slice thickness parameter, a

sequence repetition parameter, a number of phase encoding levels parameter" [See

Figure 2, col. 2 line 17 through col. 7 line 9; col. 7 line 14 through col. 9 line 36] "a

discrete Fourier transform size parameter, (i.e. col. 5 lines 55-61) "and a polarity flipping

parameter" (i.e. a paps sequence)." [See Figure 2; col. 5 line 38 through col. 9 line 36]

The same reasons for rejection, that apply to **claims 1, 19, 25, 26, 28, 29, 30, 32** also

apply to **claim 33**.

33.   The **prior art made of record** and not relied upon is considered pertinent to

applicant's disclosure.

A)   **Whayne et al.,** US patent 6,014,581 issued January 11th 2000.

B)   **Haney et al.,** US patent 4,191,919 issued March 4th 1980.

C)   **Keller et al.,** US patent 5,041,789 issued August 20th 1991.

D)   **Hoenninger, III** US patent 5,465,361 issued November 7th 1995.

E)   **Kasuboski** US patent 5,349,294 issued September 20th 1994.

20.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time
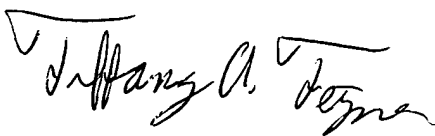
policy as set forth in 37 CFR 1.136(a).

21.   A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Conclusion

22.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tiffany Fetzner whose telephone number is: **until January 27th 2003** (703) 305-0430. After **January 27th 2003** (571) 272-2241. The examiner can normally be reached on Monday-Thursday from 7:00am to 4:30pm., and on alternate Friday's from 7:00am to 3:30pm.

23.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez, can be reached on (703) 308-3875: **until February 10th 2003** After **February 10th 2003** (571) 272-2245. The **only official fax phone number** for the organization where this application or proceeding is assigned is **(703) 872-9306**.

24.   Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0956.

TAF

December 8, 2003

Diego Gutierrez

Supervisory Patent Examiner

Technology Center 2800

CHRISTOPHER W ... TON
PRIMARY EXAMINER